

Quartzray Vector Range

Models Covered:

	Model	Heating Elements	Voltage	Weight
Vector I	VR15	1 x 1.5kW	230-240V	2.2kg
	VR20	1 x 2.0kW	230-240V	2.2kg
Vector II	VR30	2 x 1.5kW	230-240V	4.0kg
	VR40	2 x 2.0kW	230-240V	4.0kg
Vector III	VR45	3 x 1.5kW	230-240V/400-415V	5.8kg
	VR60	3 x 2.0kW	230-240V/400-415V	5.8kg
Vector IRP	VR15RP	1 x 1.5kW	230-240V	2.2kg
	VR20RP	1 x 2.0kW	230-240V	2.2kg

IMPORTANT

These instructions should be read and carefully retained by the user.

The installation of these appliances must always be carried out by a competent electrician and be in accordance with the current IEE wiring regulations and relevant Building Regulations.

The radiated heat from the heater is considerable and must be taken into account when siting the heater. Ensure that the heater is not used in close proximity to the skin or eyes.

Always isolate the heater from the supply before undertaking any maintenance work of the appliance.

The Vector range of heaters are designed for internal use only. They are not rated as flame-proof and must not be used when flammable dusts, gases, or vapours, etc., are likely to be present in the atmosphere. If in doubt, advice should be sought from the Health and Safety Executive inspectors or local fire officers.

Quartz lamps are extremely fragile and must be handled with extreme care at all times. Avoid touching the surface of the quartz sleeve with bare fingers. If the sleeve is accidentally touched remove the finger print with a soft cloth moistened with methylated spirits.

As with any fragile fitting mounted above head height, care must be taken when siting the heater to avoid locations where it may be subjected to knocks. In high risk areas such as sports halls etc. extra guarding may be required to protect the heater from flying objects.. If in doubt consult the heater manufacturer.

WARNING

THIS APPLIANCE MUST BE EARTHED. HEATERS MUST BE MOUNTED OUT OF REACH FROM OVERHEAD WALKWAYS AND OPENING WINDOWS. THE HEATER MUST BE SECURELY FIXED AS IT WILL BE DANGEROUS IN THE EVENT OF ANY INSECURITY IN ITS FIXINGS.

SPECIFICATIONS

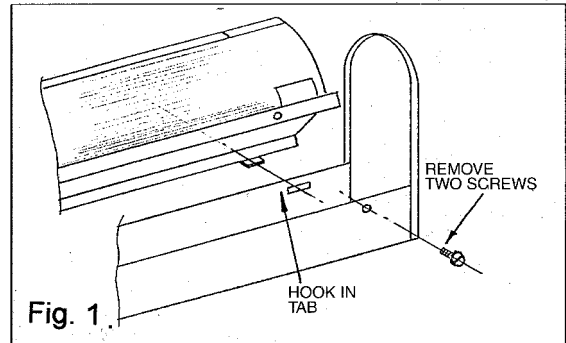
The Quartzray Vector range is available in 1,2 and 3 lamp models with outputs of 1.5kW, 2kW, 3.0kW, 4kW, 4.5kW, and 6kW respectively. The Vector III lamp model is supplied as a dual voltage unit and is suitable for use on 230-240V 1pH and 400-415V 3N supplies.

ASSEMBLY

VECTOR 1

Remove the front assembly (see fig.1) and disconnect the lamp leads from the terminal block. Remove knockout(s) as shown in fig.2. DO NOT attempt to remove knockouts on assembled heater as this will cause damage to the fragile lamps.

If a guard is to be fitted it is necessary to remove one end cap from the heater front (see fig.3).

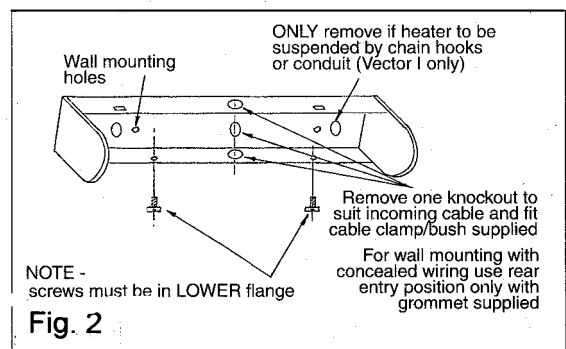


VECTOR RP

Similar to Vector 1 but rain cover must be removed before front assembly can be removed (see fig 4).

IMPORTANT

The supply cable MUST enter the back box from below on this rain-proof model to prevent water entering the heater. If the heater is to be wall mounted the two screws/nuts retaining the cover support bracket will need to be removed.

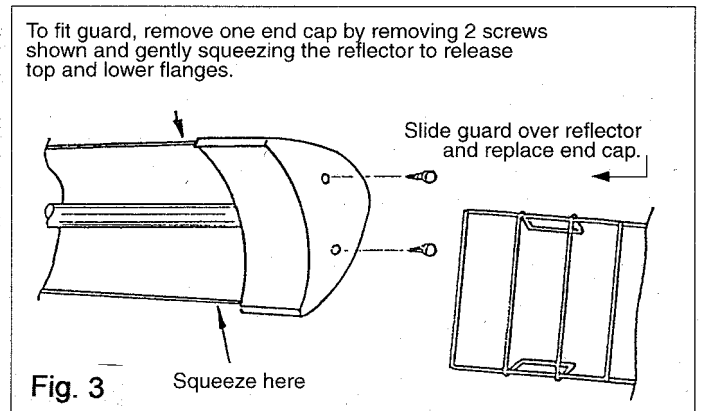


VECTOR II

Remove two front assemblies (see fig.1) and centre cover (3 screws). Remove knockout for cable entry as shown in (fig.2). DO NOT attempt to remove knockout on assembled heater as this will cause damage to the fragile lamps.

The incoming supply cable must enter by one of the three knockout positions inside the centre cover. DO NOT use the two chain hook holes at each end of the back box.

If guards are to be fitted remove one end cap from each front assembly (see fig.3).

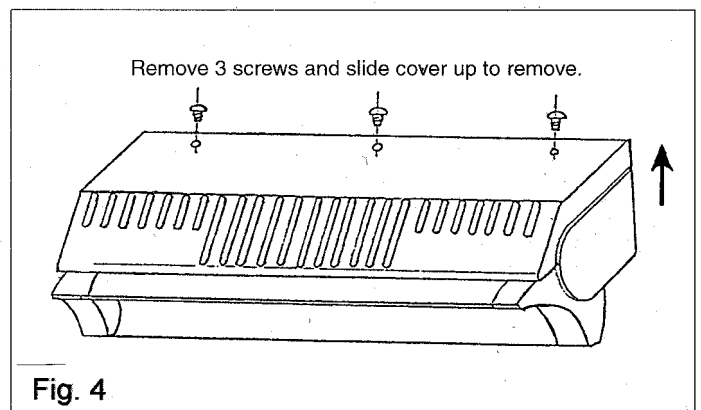


VECTOR III

Remove three front assemblies (see fig.1) and two centre covers (3 screws each). Remove knockout for cable entry as shown in (fig.2).

DO NOT attempt to remove knockout on assembled heater as this will cause damage to the fragile lamps.

The incoming supply cable must enter by one of the three knockout positions behind the right hand centre cover. DO NOT use the two chain hook holes at each end of the back box.



INSTALLATION

FLOOR WALLS & CEILINGS

The minimum mounting heights are: -

- | | | |
|----|------------------------|------|
| 1. | Vector I and Vector RP | 1.8M |
| 2. | Vector II | 2.5M |
| 3. | Vector III | 3.0M |

(Also applies to apposite wall when wall mounted)

The above dimensions also apply to the distance required to a side wall when suspended and a distance of 1.0M is required to any end wall for all heaters regardless of type of mounting.

Allow a minimum space above heaters of 150mm to any overhang or ceiling. Do not locate heater immediately below any socket outlet.

VECTOR 1

- Wall mounting – screw back box to wall using 2 holes (see fig.2).
- Bracket mounting – fit bracket to wall and back Box to bracket (see fig.5).
- Suspended mounting – remove 2 knockouts (see fig.2) and suspend back box using conduit or chain hooks.

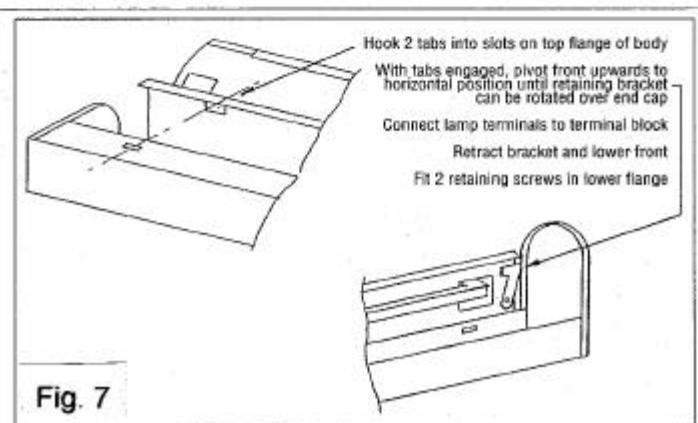
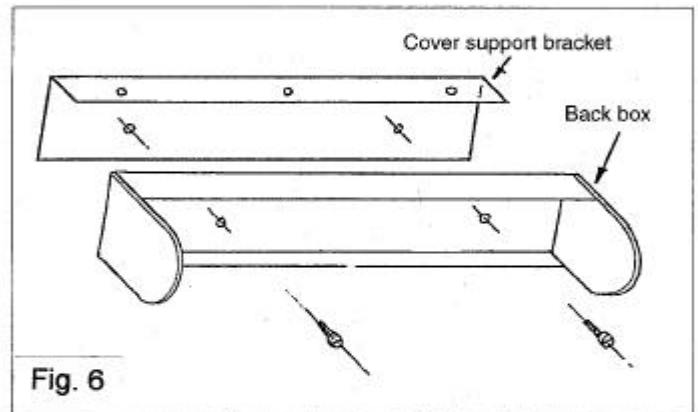
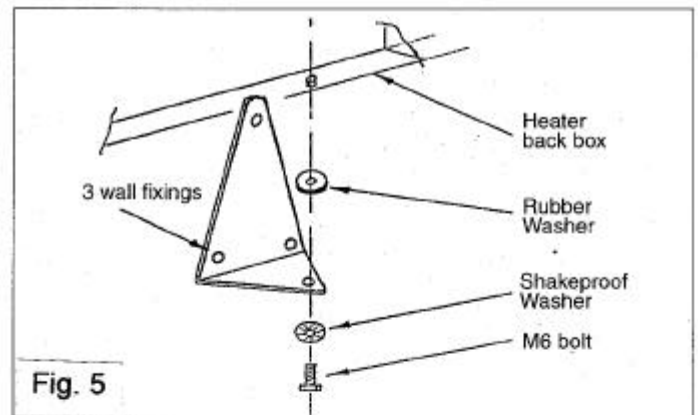
VECTOR RP

- Bracket mounting only – fit bracket to wall and back box (cover support fitted) to wall bracket (see fig.5).

VECTOR II & III

- Wall mounting – screw back box to wall using the 2 or 3 holes provided.
- Suspended mounting – suspend back box using conduit or chain hooks.

Fit front assemblies to heater (see fig.7) and adjust reflector angle to suit and on Vector RP, re-fit rainproof heater.



IMPORTANT

When deciding upon the best location, consideration must be given to the following requirements.

- a. Avoid structures liable to vibration, e.g. crane gantries, which could otherwise adversely affect lamp life.
- b. The lamps are designed to operate within 5° of the horizontal plane. It is very important to ensure that the heater is mounted horizontally, otherwise the operating life of the lamp could be impaired.
- c. Ensure appliance is mounted the correct way up so that it can be tilted down but not up.
- d. **WARNING – THESE HEATERS ARE DESIGNED TO BE WALL MOUNTED, BRACKET MOUNTED, OR SUSPENDED MOUNTED – THEY MUST NOT BE CEILING MOUNTED. THEY MUST NOT BE MOUNTED IN A ROOM CONTAINING A BATH OR SHOWER. DO NOT MOUNT HEATERS CLOSER THAN 3.5 METRES FROM CURTAINS OR SIMILAR SOFT FURNISHINGS.**

ELECTRICAL SUPPLIES

Wiring to the heater must be installed in compliance with the requirement of the IEE Regulations and any local or insurance regulations.

All heaters are suitable for use on 230-240V single phase supplies. The Vector III model is supplied as a dual voltage unit and is suitable for use on 400-415V three phase supply.

Wiring between the heater and the spur outlet or isolation switch must be in a heat resisting cable with a temperature rating of T150. Sufficient slack cable must be left to allow for angular adjustment of the heater body.

An all-pole isolating switch with a minimum separation of 3mm in each pole must be fitted adjacent to the heater to facilitate local isolation.

If miniature circuit breakers are to be used to avoid 'nuisance tripping' due to the high inrush at switch on, a type 3MCB with a tripping coefficient of 7-10 times rated current should be used. Any other switching device should be Tungsten lamp load rated.

The Vector III heater must be connected in accordance with the instructions inside the terminal cover lid. When connecting to 400-415V three phase supplies the links must be removed from the terminal block. When the heater is on a 230-240V supply, the 'Danger 400-415V' notice should be removed from the terminal cover.

Always ensure that the cable grip is tightened.

IMPORTANT

Ensure the electrical supply cable is routed and restrained to prevent contact with the external surfaces of the heater and is not positioned in the direct heat beam.

When heater is close to a ceiling the reflectors must be rotated to avoid the heat beam from directly overheating it. The reflector must point down at more than 30° from the horizontal.

Vector I and RP when bracket mounted close to an end wall (minimum of 1.0m) should have the heat beam parallel to or angled away from the wall to avoid overheating.

It is important that the user is instructed not to stack inflammable material in the direct heat beam.

MAINTENANCE

Since the Vector Heater contains no moving parts little maintenance is required beyond cleaning and lamp replacement. It is however essential that the heater is not operated with accumulation of dust or dirt on the lamp(s) or reflector(s) as this can cause a build up of heat and eventual damage. For this reason the heater must be inspected regularly, depending upon conditions and at least at yearly intervals.

Before undertaking any maintenance work on the heater due attention must be paid to the following,

1. Always disconnect the heater from the electricity supply before attempting to work on or near it.
2. Always ensure a safe means of access using an access lower or properly supported ladder.
3. Some types of quartz lamps run with an internal pressure in excess of atmospheric and while construction is very strong there is a slight risk of shattering. If it is necessary to examine a bare lamp whilst in operation then a protective screen must be used.
4. Allow adequate time for the lamps and body casing to cool before attempting to work on the heater.

INSPECTION AND CLEANING

1. Check that all the lamps are functioning. If any thermostatic or time controls are fitted ensure that the supply is 'on' before checking lamps. Any failed lamps should be replaced (see lamp replacement). Remove any accumulated dirt and check wiring and connections.
2. Clean the lamp(s) and reflector(s) using a mild detergent solution and soft cloth. Do not use any abrasive or caustic cleaners. Dry with a soft cloth. Avoid touching either the quartz lamp sleeve or the aluminium reflector with bare fingers. If they are accidentally touched remove any finger prints using a soft cloth moistened with methylated spirit.
1. Check that the lamp(s) are properly located in the spring retaining clips and that they have not been disturbed by cleaning. The lamps should be pushed fully back into the clips by applying light pressure on the end caps only.

SAFETY IN OPERATION

The heater is operated by simply switching on the electrical supply, or, if used in conjunction with a control system, then the supplier's instructions must be observed.

ALWAYS disconnect the heater from the supply before attempting to work on or near it.

NEVER operate the heater with a high accumulation of dust or dirt on the lamp(s) or reflector or with a damaged or corroded reflector.

NEVER use the heater where flammable dusts, gases or vapours, etc., are likely to be present in the atmosphere.

NEVER operate the heater in close proximity to the skin or eyes.

NEVER allow materials which could be damaged or ignited by the radiated heat to be placed in close proximity to the heater.

NEVER cover the heater – even when it is switched off.

ALWAYS refer to these instructions before attempting to dismantle the heater.

AFTER SALES SERVICE

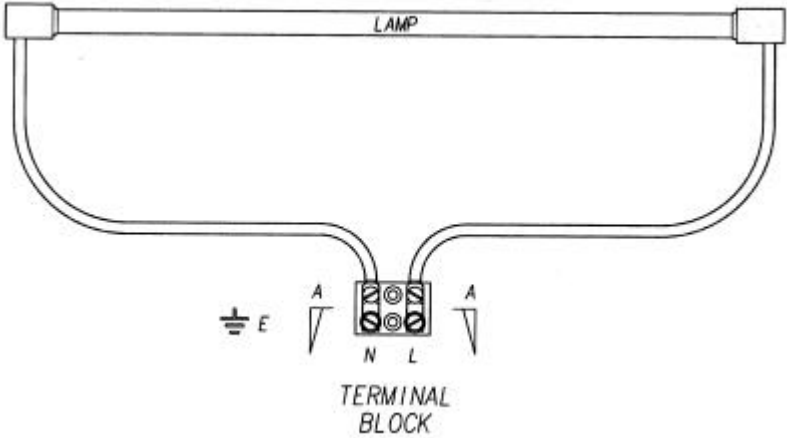
Your Quartzray Vector Heater is guaranteed from one year from date of purchase. We undertake to exchange or repair free of charge within this period, any part found to be defective due to a manufacturing fault.

Should you require after sales service, please get in touch with the supplier through whom you purchased the appliance.

Please do not initially return a faulty appliance or part of an appliance to us as this may result in transit damage and/or delay in providing service. Let us know your difficulty quoting the model number and series letter of the appliance. We will then take the appropriate action.

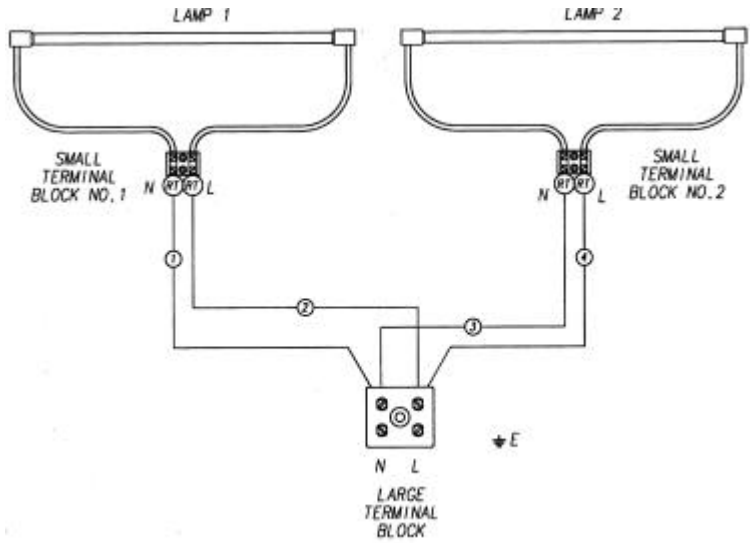
WIRING DIAGRAMS

Vector I & Vector RP



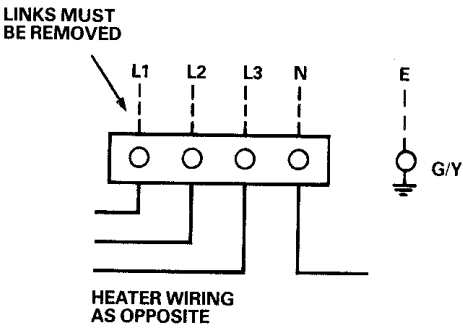
G.Y - Green Yellow
R - Red
B - Black

Vector II



Vector III

3 Phase connection on Vector III only.



CABLE - ALL MODELS 2.5 mm²
SILICONE INSULATED

